

Loxton Hub Strategy

Growing value from water in
a changing world



Purpose

The Loxton Strategic Hub Plan outlines the key priorities and strategies required at a Hub level for a thriving Hub to be successful. It is aligned with the principles of the One Basin CRC Thriving Hubs document and the One Basin CRC Strategic Plan.

The Loxton Strategic Hub Plan is accompanied by a Regional Hub Action Plan which outlines the actions required across the following 12 months to achieve the aims of the Strategic Hub Plan.

Both documents are reviewed and updated annually by 30 September.

This informed the basis of the Hub Strategy, which will then develop a Hub Action Plan to progress to the outcomes of the strategy.

Why we need a Hub Strategy

- Required within Hub Agreement between One Basin CRC & Goyder (Hub Host)
- Opportunity to refocus on relevant activities that contribute to useful outcomes
- Expectation Hubs will leave legacy – How this is to be done is currently unexplored

Delivery Expectations on Hub

- Establishment and maintenance of the Hub facility provided by PIRSA-SARDI (1BCRC Partner)
- Supporting researchers based at Hub
- Through the One Basin CRC Loxton Regional Advisory Committee, ensure regional needs are heard and being met
- Maintain strong positive engagement with Partners within the Region
- Ensuring good governance of research projects, as overseen by Project Advisory Committees

Loxton Hub Vision

The 1BCRC Loxton Hub vision is that of a Collaborative Centre where water managers, industry, research, education, first nations and government identify synergies to build expertise and resilience that underpin the futures of our industries and community.

Hub Mission

The Hub will develop connections with researchers and host them in the Region; driving locally developed solutions for local problems, building Basin wide knowledge in a collaborative manner.

Our Hubs mission includes:



Normalising collaboration across agriculture, water, and environmental sectors and engage industry, local governments, businesses and First Nations to anticipate and respond to climate and other challenges.



Becoming well-respected in developing solutions for local challenges. (SA River Murray Corridor - Border to Mouth)



Hubs are a destination preference for One Basin focussed collaboration, and provide a vibrant, supported learning opportunity for researchers & students.

Guiding Principles

The Loxton Hub Regional Advisory Committee held a workshop in March 2025 to identify the elements, core content and priorities for the Hub's Strategic Plan. The development of the Plan was based on the following principles:



Consultation: Identify regional issues via genuine consultation with regional communities, industries and stakeholders and consolidate via the Regional Advisory Committee



Credibility: Promote research projects that are valued by industries & regions – Industry led & Needs Based Research



Localism: Identify activities that create opportunities for regional communities and industries to have ownership of the outcomes generated from the Hub outcomes



Collaborate: Actively seek opportunities for collaboration and input from our local Partners:

- Industry (Horticulture / Dryland / Irrigation Delivery)
- Cross-Sector (Rural / Urban water delivery)
- Organisations that demonstrate best practice
- Regional Communities / Councils / RDA / First Nations



Coordinate: Improve coordination with other research projects that are working on identified issues (Between Hubs / Research Partners)

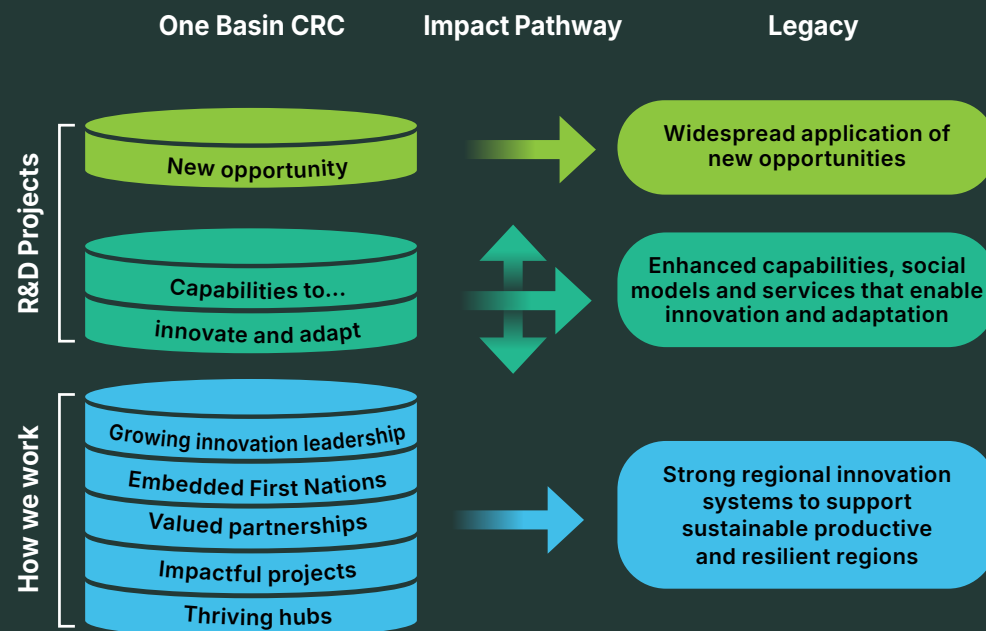


Background

One Basin CRC has engaged the Goyder Institute for Water Research (Goyder) to undertake activities for the Regional Hub in the Loxton Region including the development of a Strategic Hub Plan. This responsibility is delegated by Goyder to the Regional Hub Manager (Loxton) and consult with the Regional Advisory Committee in its development.

Research in the regions enables meaningful collaboration and engagement with regionally based partners. This ensures research is fit for purpose and directly relevant to the region – that will drive greater uptake and adoption, which is essential to achieve the innovation required for growth in both productivity and sustainability.

Hubs provide an interface directly with end users of research and having a regional presence is at the core of the One Basin CRC's design. Regional Hubs provide the opportunity to connect directly to the source of the need for our research and demonstrate our purpose and value.



Loxton Hub Plan Priorities

The Loxton Hub Strategic Plan identifies **5 Key Priorities** that are monitored constantly and reviewed annually. For 2024/25 these priorities include:

Priority	Aim
 Researcher Placement & Retention	Successfully attract, place & retain researchers in the Loxton Hub.
 Partnerships	Regional Partners, Stakeholders & Communities are actively engaged with the Hub.
 Regionally Beneficial Projects	There are tangible outcomes from 1BCRC Projects that benefit local industries & communities.
 Hub Legacy	The collaboration during the One Basin CRC leads to a legacy for Partners and the Region.
 First Nations Opportunities	Build trusting and ongoing relationships with local First Nations.

The **Loxton Hub Action Plan** sets out in more detail how these Hub Priorities will be achieved.



Researcher Attraction, Placement & Retention

A strategic aim of all Hubs is that they are a great place to live and work, attracting talent to the Region. The **Thriving Hubs** document focusses on the 3 critical elements to obtain and maintain a critical mass of researchers at Hubs; Strategies to **Attract, Place & Retain** researchers.

With relation to researcher (talent) Regional placement these include outlining:

Strategy	Promote Benefits & Opportunities of
Attract	• Career & Research Opportunities • Community & Lifestyle Benefits • Support for Relocation & Professional Growth
Place	• Strategic Benefits for One Basin CRC Researchers • PhD Supervisor Support • Hub Cohort Establishment • Bonding opportunities for students • Relocation support & local mentors
Retain	• Post Research Partner Employment Opportunities • Industry Relationships • Internships

Partnerships

Collaboration with our partners and the community is integral to One Basin CRC's success. Our partner network is diverse with representatives from the research and education, industry, agriculture, water and technology sectors, ensuring we can achieve our vision and establish a more productive, resilient and sustainable basin.

At a Hub level, connecting with One Basin CRC Partners and maintaining relationships are critical to ensure the following aims are achieved:

- Partners have every opportunity to collaborate and be involved in project prioritisation, co-design and delivery;
- Partner satisfaction and their level of engagement with the CRC;
- Partner retention; and
- Opportunities for mutual benefit and collaboration potential are constantly realised.

Regular in-person meetings and workshops with Regional 1BCRC Partners occur to ensure the Hub stays connected to local, real-world challenges and priorities that require research solutions.

The Regional Hub Manager is responsible for maintaining these relationships with partners and seeks feedback from RAC members on ways to realise the aims above.

Regionally Beneficial Projects

A Key output of priorities 3.1 -Researcher Attraction, Placement and Retention and 3.2 – Partnerships, is the development of Regionally Beneficial Projects.

The Loxton Hub Regional Advisory Committee values relevant, solution-based projects that benefit local industry & communities. An example of a project, raised by the irrigation industry, for development and consideration in 2025/26 includes:

Elimination of Bryozoa in Irrigation Distribution Systems

Bryozoa - are among the most encountered animals that attach to submerged surfaces in freshwater. In general, bryozoans are sessile, modular invertebrates with ciliated tentacles that capture suspended food particles. During warm months, bryozoans are found in almost any lake or stream where there are suitable attachment sites. The variety of forms ranges from wisps of stringy material to massive growths weighing several kilograms. In the days before sand filtration, bryozoans were notorious for clogging the distribution pipelines of public water systems. Today they still foul industrial water-cooling systems, irrigation lines, water-treatment plants, and decorative fountains.



Problem

Fouling growths in water pipelines is a common problem around the world and is very difficult to manage. Typically, these growths clog pipes and filters, damage pumps and valves and greatly increase infrastructure operating and maintenance costs.

There has been existing research around the world, including in Australia to try and find cost effective reliable methods to control these organisms. While this is relatively easy when dealing with small water volumes or chlorinated drinking water, it is extremely difficult when dealing with large water volumes.

The most difficult scenario is with irrigation water where the typical control measures are either prohibitively expensive or have significant chemical residue issues. To complicate things, the untreated river water many irrigation operators supply for irrigation purposes is also used by domestic customers and organic growers. In both cases, the chemical residues from treatment are likely to be unacceptable. Unfortunately, despite research, no effective solution has yet been found.

Research Opportunity

A cost-effective solution to the removal of Bryozoa from irrigation pipelines would significantly benefit irrigation operators and private irrigation divertors across the Murray Darling Basin by reducing input costs and the frequency of flushing systems, hence saving water. This issue increases in severity particularly during warm weather and floods, both potentially increasing in frequencies due to a changing climate.

It is suggested an appropriate PhD Research Topic which would be supported locally at the One Basin CRC Loxton Hub by Central and Renmark Irrigation Trusts respectively. Research outcomes could be shared across the Basin with many One Basin CRC partners including National Irrigators Council, Murrumbidgee Irrigation, Coleambally Irrigation and Irrigation Australia.

Hub Legacy

The One Basin CRC Hub model currently provides a Governance structure at the Loxton Hub for partner collaboration in research. It is anticipated that this initial investment in the Loxton Hub will consolidate the relationships, identify the needs and demonstrate the benefits of collaboration that lead to ongoing commitment and investment in the development of world leading, place-based water management and stewardship.

The focus of the RAC in 2025/26 is on the demonstration of benefits of current collaboration and participation within existing projects.

The RAC has identified a key research partner is required to build a legacy around e.g. Goyder, UoA, Flinders, SARDI. It is also considered that future opportunities for Hub based researchers are likely to include SARDI & local industry (e.g. Almond & Wine).

Potentially, a smaller regional scale collaborative partnership could be created post One Basin CRC, at a Hub Level, where there is demonstrable benefit in continuing that partnership.

The RAC will constantly seek opportunities to create a Hub Legacy and review its activities in this area at least annually via review of the Hub Annual Plan.



First Nations Opportunities

As stated in priority 3.2 – Partnerships, collaboration with our partners and the community is integral to One Basin CRC's success. The Loxton Hub RAC recognises that First Nations communities have a history and connection with the land, that hasn't always been heard and acknowledged and that this knowledge is important to identifying regional needs and solutions.

Strategic aims of the Loxton Hub with local First Nations include:



Build trusting & ongoing relationships with regional First Nations including River Murray & Mallee Aboriginal Corporation (RMMAC) and Ngarrindjeri Aboriginal Corporation (NAC).



Seek out partnership opportunities with RMMAC & NAC

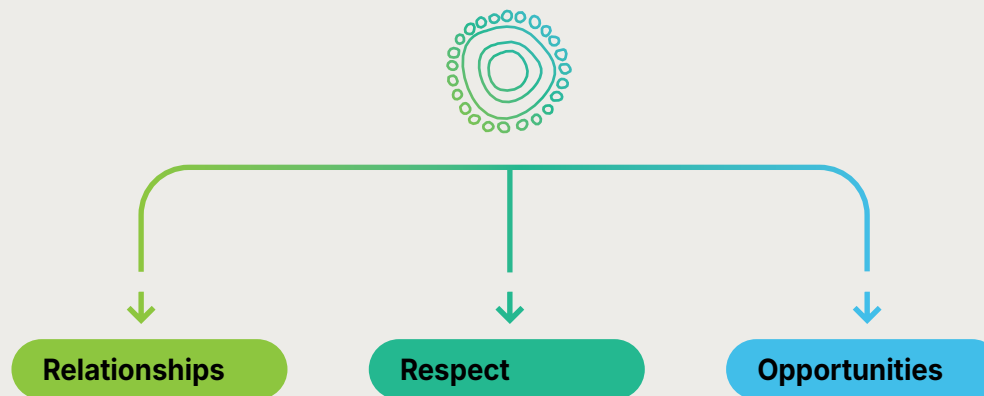


Seek out how RMMAC & NAC wish to be engaged



Add cultural knowledge to projects & apply cultural practices to use of water where appropriate

First Nation inclusion principles



Loxton Hub Strategy Timeline

Trajectory Towards Hub Vision

Partner & Industry Relationships

Place & Accommodate Researchers

Communicate Project Outcomes

Hub Legacy Development

Year 1

Year 5

Year 10

Learn more

To learn more about our Hubs, visit our website or contact us at: admin@onebasin.com.au



Australian Government
Department of Industry,
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Cooperative Research
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